ENV-115-01 **Environmental Science** **Fall 2013**

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Communication: Email is by far the best and fastest way to contact me; my office phone number has voice mail, but I will invariably see emails before hearing voice mail.

Office Hours: by appointment; I will usually be in my office when I am not teaching, feel free to stop by.

Course Goal: This course will familiarize the student with the processes of the natural world and how they affect the atmosphere, biological systems, hydrology, and other essential pieces of the biosphere. Students will be challenged to understand the complexities and connections between the biotic and abiotic components that interact to produce a world that supports life (including agriculture) and maintains general homeostasis.

Instructional Objectives

A. Knowledge
1. Terminology of environmental science, biology, geology, hydrology, etc.
2. Characteristics of ecosystems
3. Worldwide species diversity gradients
4. Inputs and outputs of natural systems
5. Interactions between living and non-living environmental components
6. Impacts humans and other living species have on the environment

B. Skills
1. Recognizing indirect effects
2. Recognizing the intricacies of natural processes
3. Appropriately testing scientific hypotheses
4. Accurately and appropriately conveying scientific knowledge through writing and presentation

C. Dispositions
1. Appreciation of the immense diversity of living organisms
2. Appreciation and respect for the necessity of both abiotic processes and living organisms to maintain the earth in a habitable state (and support human agriculture)
3. Appreciation of the vulnerabilities of the environment
4. Appreciation of the utility of the scientific method in seeking answers

Textbook: Miller and Spoolman (2011) Environmental Science, 13th edition. ISBN 9780495560166

Instructional Procedures: lecture, laboratory, full-semester class research, field trip

Evaluation: Total of 600 points	
• Tests (3): 100 points each (300 total) • Research Project: 100 points • Quizzes (4): 20 points each (80 total)	• Group Presentation: 50 points • Lit. Presentations (2): 25 pts each (50 total) • Participation: 20 points

Grading Scale									
94-100%	A	88-89	B+	78-79	C+	68-69	D+	< 60	F
90-93	A-	84-87	B	74-77	C	64-67	D		
		80-83	B-	70-73	C-	60-63	D-		

Tentative Schedule (subject to change; students will be notified if important changes are made)

Month	Day	Topic	Readings	Graded Work
Aug	19	Introduction, syllabus	Chapter 1	
	21	Sustainability, Science	Chapter 1,2	
	26	Ecosystems	Chapter 3	
	28	**Project Sampling**		
Sept	2	---------- No Class – Labor Day ----------		
	4	Biodiversity	Chapter 4,5	Quiz 1
	9	Urbanization	Chapter 6	Research Project 1 Due
	11	**Project Sampling**		
	16	**Lab 1: Tree diversity and size**		Quiz 2
	18	Climate and Biodiversity	Chapter 7	
	23	**EXAM 1**	Coverage: Chapters 1-6	
	25	**Project Sampling**		
	30	Sustaining Biodiversity	Chapter 8	Research Project 2 Due
Oct	2	**Lab 2: TBD**		
	7	Sustaining Biodiversity	Chapter 9	
	9	**Project Sampling**		Group project outline due
	14	---------- No Class – Midterm Break ----------		
	16	Food, Soil, Pests	Chapter 10	
	21	Water	Chapter 11	Quiz 3
	23	**Project Sampling**		
	28	Geology	Chapter 12	
	30	**Lab 3: Field Trip**		
Nov	4	**EXAM 2**	Coverage: Chapters 7-12	
	6	**Project Sampling**		Research Project Draft 1 Due
	11	Energy	Chapter 13	
	13	Environmental Hazards	Chapter 14	
	18	**Project Sampling**		Quiz 4
	20	**Lab 4: Soil sampling**		
	25	Air Pollution, Waste	Chapter 15,16	Research Project Paper Due
	27	---------- No Class – Thanksgiving ----------		
Dec	2	Economics and Politics	Chapter 17	
	4	Review Day, Project Discussion		
	11	**FINAL EXAM** – 1:00 p.m.	Coverage: Chapters 13-17	

Research Project: We will be doing a semester-long project in which you will collect and interpret data on an aspect (to be determined) of environmental significance. We will have at least 7 sampling days for this project. You will collaborate on this project with other students, but you will be receiving an individual grade based on participation (determined by me and evaluations from your classmates) and the final report that you will turn in at the end of the semester.

Literature Presentations: Each person will do 2 primary literature presentations. These will be based on scientific articles that you will locate and present to the class. You will sign up for specific presentation dates; it is permissible to trade dates with other students in the class.

Group Presentation: In small groups students will present in-depth information concerning an important environmental topic; potential topics will be provided.

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General Policies:

Attendance: Required for laboratory exercises, field trips, and project sampling (see schedule). Additionally, there is a participation grade that will be based on your general enthusiasm, involvement, and punctuality during all aspects of this course. Participation grades will be assigned periodically throughout the semester.

Late Policy: assignments are due electronically at the beginning of the class period on the due date (unless otherwise specified). Late assignments will be accepted up to 10 days after the due date, but points will be deducted for all late submissions. If submitted on the due date but after the original submission deadline, the final grade will be reduced by 5% of assignment's value. For each full day late, 10% will be deducted.

Make-up Tests and Quizzes: All tests and quizzes must be taken at the assigned times. A valid excuse is required to take a make-up test or quiz (having an appointment at that time does not count as a valid excuse). If a test or quiz is moved to another day, you will be notified in class and through email. Quizzes will be given at the beginning of class. If you are late and miss the quiz, you will not have a chance to retake it. If you come in late but before the quizzes have been collected, you will have until the final person who showed up on time for the quiz is finished. Quizzes are multiple choice and generally last 15 to 20 minutes.

Academic Honesty: Plagiarism and general academic dishonesty will not be tolerated. Work must be your own unless an assignment is explicitly identified as group or class work. I will be using turnitin.com to provide you with feedback on submitted assignments. You **must** submit assignments through the turnitin.com dropbox on Angel to receive credit. Any sources used must be appropriately cited. Do not use **any** direct quotations in your writing; put **everything** in your own words. **DO NOT COPY-AND-PASTE ANYTHING**; copying directly from a source (in some cases, even a few words in a row) will result in a zero grade for that assignment and potentially more severe repercussions. Feel free to ask me if you need guidance on any of these issues, I am here to help you. Please refer to the student handbook for more information on academic honesty.

Quiz Etiquette: Quizzes will be at the beginning of class. If you finish early, please just sit quietly and wait for everyone else to finish. In order to limit the possibility of cheating, I would like everyone to remain seated until the quizzes are handed in. During this time of quiet reflection, please do not get your cell phone out, check your notes, or ask to use the restroom. Make sure you are happy with your quiz answers, and wait.

Technology: Please avoid distracting others with the use of electronic devices. This is especially relevant during laboratories and field trips, and I will ask you to cease using such devices if necessary.

Classroom behavior: we may have some heated discussions during this class, but please respect everyone's point of view and discussion points. Disrespectful behavior will not be tolerated, and in extreme cases I may ask a belligerent student to leave the classroom for the rest of the class session.

When you need help: this course has a lot of information and concepts to learn (in addition to your other courses and responsibilities). Please ask me for help when you need it. I am here to answer questions and can meet with you to go over class materials and explain concepts. The Academic Resource Center also has tutors and resources to help you. Please ask for help when you need it.

Disability Statement: Students who have documented their disabilities with the Coordinator of Disability Services (Erskine 214, 251-4233) are encouraged to meet privately with me to discuss arrangements for their approved accommodations.

Email: I will communicate with you often and exclusively through your ODU email. Please check it regularly, as you are responsible for any messages sent to your account (see http://www.ohiodominican.edu/stuserv/computing/Policy/emailcommpolicy.shtml). If you have problems with your email or need help managing your email account, please contact the ODU Computer Helpdesk.

HOW TO DO WELL IN THIS CLASS

1. Come to lecture every time
2. Pay attention in lecture (e.g., don't text message)
3. Take notes
4. On the same day as the lecture, take a few minutes and review your notes; if something doesn't make sense, email me or ask about it at the beginning of the next lecture
5. Come to my office and ask questions; look through your notes and find the three (or more) concepts you least understand, have me go over those with you again one-on-one
6. Turn in all assignments; a 40% is much, much better than a 0

How to correctly write an email to an instructor/professor (or anyone else, for that matter):

1. Use a descriptive subject
2. Capitalize, spell check, and write complete sentences
3. Proofread
4. Address it to the intended recipient
5. Include your full name at the end

Example:

Subject: Quiz question
Professor Mathys—
I have a question about Thursday's quiz. Are all vertebrates as cool as salamanders, or just birds? Thank you for your time.
Sincerely,
Ruth Harkness

Example of what not to do:

Subject: thursday
prof, will their be a cruve on thursdays quiz. i wasnt sure. thanx